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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,927	11/30/2001	Syed M. Ali	16159/021001; P6416	5348

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EXAMINER

DOAN, DUYEN MY

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,927

Applicant(s)

ALI ET AL.

Examiner

Duyen M Doan

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11/30/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/30/01</u> . | 6) <input type="checkbox"/> Other: _____ |

Detail Action

Claims 1-36 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-25, 31-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Glass (us pat 6629128).

As regarding claim 1, Glass discloses creating the proxy that implements an interface of a remote object in the server portion and has a capability to cache data from the remote object (col.6, line 14-34, col.4, line 1-52); modifying the client portion to substitute a call for the remote object with a call for the proxy (col.7, line 40-47); and interposing a client runtime that includes the proxy between the client portion and the server portion (col.7, line 56-67, col.8, line 1-7).

As regarding claim 2, Glass discloses interposing a server runtime between the client runtime and the server portion that enables interaction between the client runtime and the server portion (col.11, line 3-38).

As regarding claim 3, Glass discloses sending a message to the server runtime to fetch data from the remote object (col.13, line 54-67, col.14, line 1-17).

As regarding claim 4, Glass discloses receiving data fetched by the server runtime and caching data in the proxy (col.13, line 54-67, col.14, line 1-17).

As regarding claim 5, Glass discloses sending a message to the server runtime to synchronize data cached in the proxy with data in the remote object (col.14, line 41-67).

As regarding claim 6, Glass discloses sending a message to the server runtime to invoke a method of the remote object on behalf of the proxy (col.13, line 54-67, col.14, line 1-17).

As regarding claim 7, Glass discloses receiving a result of invoking the method of the remote object from the server runtime and passing the result to the proxy (col.13, line 54-67, col.14, line 1-17).

As regarding claim 8 is rejected for the same rationale as claim 1.

As regarding claim 9, Glass discloses creating the proxy for the plurality of remote objects in the server portion comprises analyzing the server portion to determine the remote objects in the server portion (col.11, line 1-38).

As regarding claim 10, Glass discloses analyzing the server portion comprises parsing machine code for the server portion (col.9, line 45-55).

As regarding claim 11, Glass discloses analyzing the server portion comprises parsing a descriptor containing a list of classes in the server portion (col.9, line 1-67).

As regarding claim 12, Glass discloses analyzing the server portion comprises parsing source code for the server portion (col.9, line 56-67, col.10, line 1-29).

As regarding claim 13, Glass discloses modifying the client portion comprises modifying machine code for the client portion (col.7, line 1-37, col.6, line 1-34).

As regarding claim 14, Glass discloses modifying the client portion comprises modifying source code for the client portion (col.7, line 1-37, col.6, line 1-34).

As regarding claim 15, Glass discloses modifying the client portion to substitute a call to a first lookup service that locates the remote object with a call to a second lookup service that locates the corresponding proxy (col.7, line 1-37, col.6, line 1-34).

As regarding claim 16, Glass discloses the lookup service that locates the corresponding proxy is included in the runtime (col.7, line 1-37, col.6, line 1-34).

As regarding claim 17, Glass discloses modifying the client portion to substitute a call to manage a lifecycle of the remote object with a call to manage a lifecycle of the corresponding proxy (col.7, line 34-47).

As regarding claim 18, Glass discloses fetching data from the remote object into the proxy associated with the remote object (col.9, line 19-38).

As regarding claim 19, Glass discloses synchronizing data in the proxy with data in the remote object associated with the proxy (col.9, line 19-38).

As regarding claim 20, Glass discloses invoking a method of the remote object on behalf of the proxy associated with the remote object (col.7, line 34-47).

As regarding claim 21, Glass discloses receiving a result of invoking the method of the remote object and passing the result to the proxy (col.14, line 1-17).

As regarding claim 22, Glass discloses the runtime includes a client runtime that interacts with the client portion and a server runtime that interacts with the server portion (col.11, line 54-67, col.12, line 1-20).

As regarding claim 23, Glass discloses the client runtime and server runtime communicate in order to enable interaction between the client portion and the server portion (col.11, line 54-67, col.12, line 1-20).

As regarding claim 24, Glass discloses analyzing the server portion to find each remote object in the server portion (col.11, line 1-38); creating the proxy for each remote object in the server portion and including the proxy in a runtime library (col.6, line 14-34, col.4, line 1-52); analyzing the client portion to determine calls made to remote objects in the server portion and replacing calls for remote objects with calls for a corresponding proxy (col.7, line 1-37, col.6, line 1-34); and interposing the runtime library between the client portion and the server portion (col.7, line 56-67, col.8, line 1-7).

As regarding claim 25, Glass discloses interposing a runtime between the client portion and the server portion, the runtime comprising at least a proxy associated with a remote object in the server portion, the proxy having a capability to cache state information from the remote object (col.7, line 56-67, col.8, line 1-7, col.11, line 3-38); enabling the client portion to interact with the proxy (col.7, line 34-47); fetching data from the remote object into the proxy (col.9, line 19-38); and synchronizing data in the proxy with data in the remote object (col.9, line 19-38).

As regarding claim 31, Glass discloses A computer-readable medium having recorded thereon instructions executable by a processor, the instructions for: analyzing a server portion of a distributed application to find each remote object in the server portion (col.11, line 1-38); generating a proxy for each remote object in the server portion (col.6, line 14-34, col.4, line 1-52); and including the proxy for each remote object in the server portion in a runtime library (col.7, line 56-67, col.8, line 1-7). \

As regarding claim 32, Glass discloses instructions for modifying a client portion of the distributed application such that a call for a remote object is replaced with a call for a corresponding proxy (col.7, line 34-47).

As regarding claim 33, Glass discloses means for creating a local proxy for a remote object in the distributed application (col.6, line 14-34, col.4, line 1-52); means for fetching data from the remote object into the local proxy (col.9, line 19-38); and means for synchronizing data in the local proxy with data in the remote object (col.9, line 19-38).

As regarding claim 34, Glass discloses means for invoking a method of the remote object on behalf of the local proxy (col.7, line 34-47).

As regarding claim 35, Glass discloses means for receiving a result of invoking the method of the remote object and passing the result to the local proxy (col.14, line 1-18).

As regarding claim 36, Glass discloses means for packing data for transport between the local proxy and the remote object (col.14, line 1-18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glass (us pat 6629128) in view of Ma et al (us pat 5920725).

As regarding claim 26, Glass discloses generating a proxy for a remote object in a server and making the proxy available to a client (col.6, line 14-34, col.4, line 1-52); fetching data from the remote object into the proxy (col.9, line 19-38).

Glass does not disclose returning data in the proxy to the remote object.

Ma et al discloses returning data in the proxy to the remote object (col.7, line 1-58).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have incorporated Ma et al's teachings with the teaching of Glass, for the purpose of perform real-time modifications to a distributed-object database application. Run-time object modification and generation (col.4, line 29-33).

As regarding claim 27, Ma et al discloses returning data in the proxy to the remote object comprises returning data modified by the client to the remote object (col.7, line 1-58). The same motivation are utilized in claim 26 above are applied equally as well to 27.

As regarding claim 28, Ma et al discloses instructions for updating data in the remote object with data in the proxy (col.6, line 31-67). The same motivation are utilized in claim 26 above are applied equally as well to 27.

As regarding claim 29, Glass discloses instructions for invoking a method of the remote object on behalf of the proxy (col.7, line 34-47).

As regarding claim 30, Glass discloses instructions for returning a result of invoking the method of the remote object to the proxy (col.14, line 1-18).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner
Duyen Doan
Art unit 2143

DD

Will C. Vap
Primary Examiner
Art Unit 2143
William C. Vaughn, Jr.